

**RISKS AND OUTCOMES OF SOCIAL EXCLUSION
INSIGHTS FROM LONGITUDINAL DATA**

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Preface

This report arises from an earlier one produced for OECD on the *Use of Longitudinal Data in the study of Social Exclusion* (Bynner, (1996). That focused on the availability of large scale and long term longitudinal data as a research resource in the study of social exclusion. This report is concerned with findings from studies using longitudinal data that contribute to our understanding of the topic. I was asked to do this through the linkages between disability and disadvantage to education and employment and other "socially excluding externalities". The field is potentially a huge one so I have been selective in restricting the report to studies that are complementary in adding significantly to knowledge of social exclusion - especially as manifested through backwardness in education and its counterpart - behaviour problems and criminality in adolescence. This has merited a fairly extensive use of research - much of it involving different types of longitudinal data - to examine the concept of social exclusion and how it relates to ideas of risk and protection. The first part of the report is devoted to this question. The second part focuses on the idea of childhood risk and protection. The next two sections examine in more detail findings from longitudinal research, first on risk and protective factors and second on life course patterns leading to social exclusion in adulthood. The final section draws some general conclusions about the social exclusion process and considers some implications for policy.

1. Risk and social exclusion

1.1. Children's vulnerability to adverse social and economic circumstances is well established. Socio-economic background is one of the main predictors of cognitive development that provide the underpinnings of educational achievement, and on which much success in later life depends. But all children are not vulnerable to background factors in the same way; nor is the response to interventions to reverse the adverse effects uniform. Individual and social factors interact in the dynamics of child development. And the outcomes are never entirely predictable. Consequently, the idea of *risk*, with its probabilistic connotations, and its counterpart *protection* have been favored terms in describing young children's development (Evans, 1995). The response of the individual child is further conceptualised in terms of the other key attributes discussed by developmental psychologists, *vulnerability* and *resilience* (Brambling, L sel and Skowronek, 1989; Rolf et al, 1990; Guralnik, 1997). How a child responds to risk is a function of personal attributes, part socially determined and part biologically based. Medical invulnerability refers to innate resistance to particular illnesses; in child development *resilience* involves access to and use of personal and social resources. (L sel, Bliesener and K ferl, 1989). These are fundamental in determining the course the individual's life course takes.

1.2. This leads on to the idea of predictability of life chances from earlier circumstances as expressed through the idea of the "risk trajectory": one risk factor re-enforces another leading to increasingly restricted outcomes in adult life (Rutter, 1988, 1990, 1993). Protective factors may impede or halt the process enabling the child's life to move in positive directions (Garmetzy, 1985, 1993). Thus strong parental aspirations, and sustained encouragement and commitment to a child by a teacher may override the worst effects of poverty and disadvantage. This stresses the dynamic aspects of risk and protection the outcomes of which can only be effectively observed from longitudinal data.

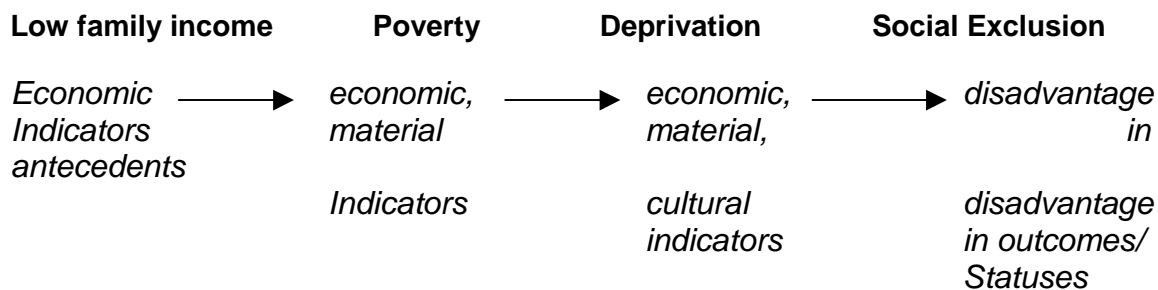
1.3. In recent years the idea of "social exclusion" has taken this kind of conceptualisation further (Atkinson, 1998; Room, 1999; Virtanen, 1996, Klasen, 1997). Originally proposed in France to describe the exclusion of people with disabilities from full citizenship, the idea of exclusion puts alongside risk and protective factors, various kinds of policy-driven obstacles to development that children (and adults) have to surmount.

1.4. The special needs agenda gave rise to a massive policy development in most developed countries concerned with inclusive education and positive discrimination to remove restrictions on opportunities for children (and adults) with disabilities. It also brought with it rights of access enshrined in equal opportunities legislation and a whole range of initiatives to match educational provision to the needs of the individual child. The special needs model is an important one in the evolution of the concept of social exclusion; though the individualised solutions it brings with it are only some of the strategies needed to combat social exclusion on a wider scale. The broader view of disadvantage, which social exclusion policy now addresses, is typically directed at whole communities in which children are seen to be suffering multiple deprivation and such clarion calls as "joined up policies" reflect the needs for multiple agencies, operating holistically to tackle them (UK Social Exclusion Unit, 1998; 1999a; UK HM Treasury, 1999).

1.5. Although family poverty is a common component of social exclusion risks, writers such as Sen (1992), Room (1998) and Atkinson (1998) are at pains to stress that the social exclusion concept embraces much more than this. As in the case of disability, social exclusion may not involve poverty at all. In referring to 'five steps beyond poverty' Room (1998) draws out the breakdown in relationships with the wider society and even family relationships that social exclusion ultimately produces. The exercise of the rights associated with citizenship is effectively prevented, or in French terms the 'social solidarity' founded on the 'social contract' between the individual and the state breaks down (Virtanen, 1996). Figure 1 illustrates the way in which poverty can be conceived as transforming into social exclusion. Low income in itself is less important than the position it places

someone relative to others in terms of various economic indicators of consumption from type of housing to holidays abroad. Deprivation brings cultural impoverishment into the picture especially as manifested through education. Social exclusion encompasses both prior disadvantages and marginalised statuses, whereby the individual is effectively prevented from participating fully in the modern state.

Figure 1 Poverty and social exclusion



1.6. Atkinson(1998) identifies three defining features of the social exclusion outcomes on the right hand side of this diagram: *relativity, agency* and *dynamics*.

Relativity resides in the fact that exclusion is defined by the standards and norms that are current at a particular point in time, especially in relation to consumption. Thus access to telephones, and transport, not to mention various kinds of insurance or, in the case of children, clothes and toys, may define individuals as excluded now, who would not have been excluded 20 years ago.

Agency makes the point that individuals may act to exclude themselves from mainstream life or be excluded by others. Individual choices, however constrained by such structural imperatives as class, gender and ethnicity, are therefore always involved.

Dynamics arise in the sense that social exclusion is a process that involves interacting circumstances and experiences across all the spheres of life over a period of time. Losing a job may not in itself be a manifestation of exclusion, but unemployment over an extended period, accompanied by poverty, poor health and low self-esteem, becomes exclusion. This means in research terms that we can only begin to understand the process of social exclusion by following up individuals longitudinally, i.e. observing their lives over a period of time.

1.7. So how do people become "excluded"? Sen (1992) stresses lack of "capabilities" as the key component of the exclusion process. Socially excluded individuals have been denied access to the resources (material, cultural, emotional) that enable them to acquire capabilities. Most obviously such capabilities relate to cognitive development and educational success, but also extend to the broader spheres of health and social participation. The life course processes through which they are acquired, or fail to be acquired, are not fixed in time; nor can their acquisition be judged against a fixed set of performance standards.

1.8. One defining factor is their importance in the achievement of adult identity. Capabilities that give access to employment and employability are central to male identity and increasingly so to female identity. Though women's combination of employment and time out of the labour market to have and care for children, including often mixing for a period child care with part-time work, makes the picture more complicated (Hakim, 1996; Bynner, Morphy and Parsons 1997). A manifestation of women's exclusion can be the speeding up of the transition to adulthood through early (teenage) pregnancy effectively closing off the opportunity to improve employability through further education and work experience (Quinton and Rutter 1988; Social Exclusion Unit, 1999b; Parsons and Bynner in press.) Men's response to unemployment and its relationship to parenthood tend to take the opposite form. Exclusion from employment through lack of education brings with it postponement of

commitments to partnership and parenthood - the young men opting instead for what Wallace describes as a state of "perpetual adolescence" (Wallace, 1987).

1.9. But there are also contextual effects, which need to be taken into account and also help to explain the current significance of social exclusion itself. The changing nature of the labour market means that personal attributes, such as poor educational achievement, which presented no significant barriers to employment in the past, now predict marginalised or peripheral employment and consequently exclusion. Until the mid-1970s the large numbers of people in industrialised societies who left the education system lacking qualifications were recruited into the numerous semi-skilled and unskilled jobs that existed then. As this kind of work declined, employers were demanding ever-higher levels of skills and qualifications from new recruits, forcing many without them into casual work and unemployment. The shift towards the kind of part-time employment undertaken mainly by women in the past has added to the problems faced by unskilled men (Hakim, 1996; Bynner, Morphy and Parsons, 1997). On some forecasts such problems are likely to increase as technological change continues to accelerate and the total volume of employment declines, fuelling the problem of exclusion even further (Rifkin, 1995; Aranowitz and diFazio, 1994).

1.10. There are clearly other manifestations of exclusion, besides those to do with employment, including poor mental and physical health, criminality, and lack of social and political participation, which bring in additional elements. But in policy terms no intervention that fails to address, from the very earliest stages of life, the education problem that is common to all of them, is going to succeed in preventing exclusion. Accordingly it will be the major focus of attention in this report.

2. Children and Social Exclusion

2.1. Children, as members of families, suffer from the social exclusion of their parents. The restriction this places on their development provides the basis of their own exclusion later on in life. This means that the outcomes of their early experiences at home and in the school and through which their positions in adult society are ultimately determined need to be a focus as well. Such a sequence is illustrated by the list below:

- poor acquisition of the basic skills of literacy and numeracy
- poor educational attainment through school
- early leaving from education without qualifications
- early labour market entry problems, including jobs without training
- casual work and unemployment
- teenage pregnancy
- trouble with the police
- alcohol abuse
- criminal convictions
- poor physical and especially mental health

2.2. Each outcome is both an indicator of social exclusion early on and a predisposing factor for social exclusion later. This brings the idea of risk and protective factors back into the picture. Thus for example success in

heading off educational failure by intervention directed at pre-school preparation is a source of protection against the risk ultimately of exclusion in the adult labour market.

2.3. Such a process is continuous, in the sense that one outcome leads to another, and it is also to a degree cyclical in its effects, in the sense that its outcomes are mutually reinforcing and may be damaging to achievements earlier in life. For example the experience of family conflict at a particular stage of childhood may not only hold back the child educationally relative to peers, but he or she may regress to earlier levels of cognitive performance and behaviour (Bergman and Magnusson, 1991; Caspi et al, 1996).

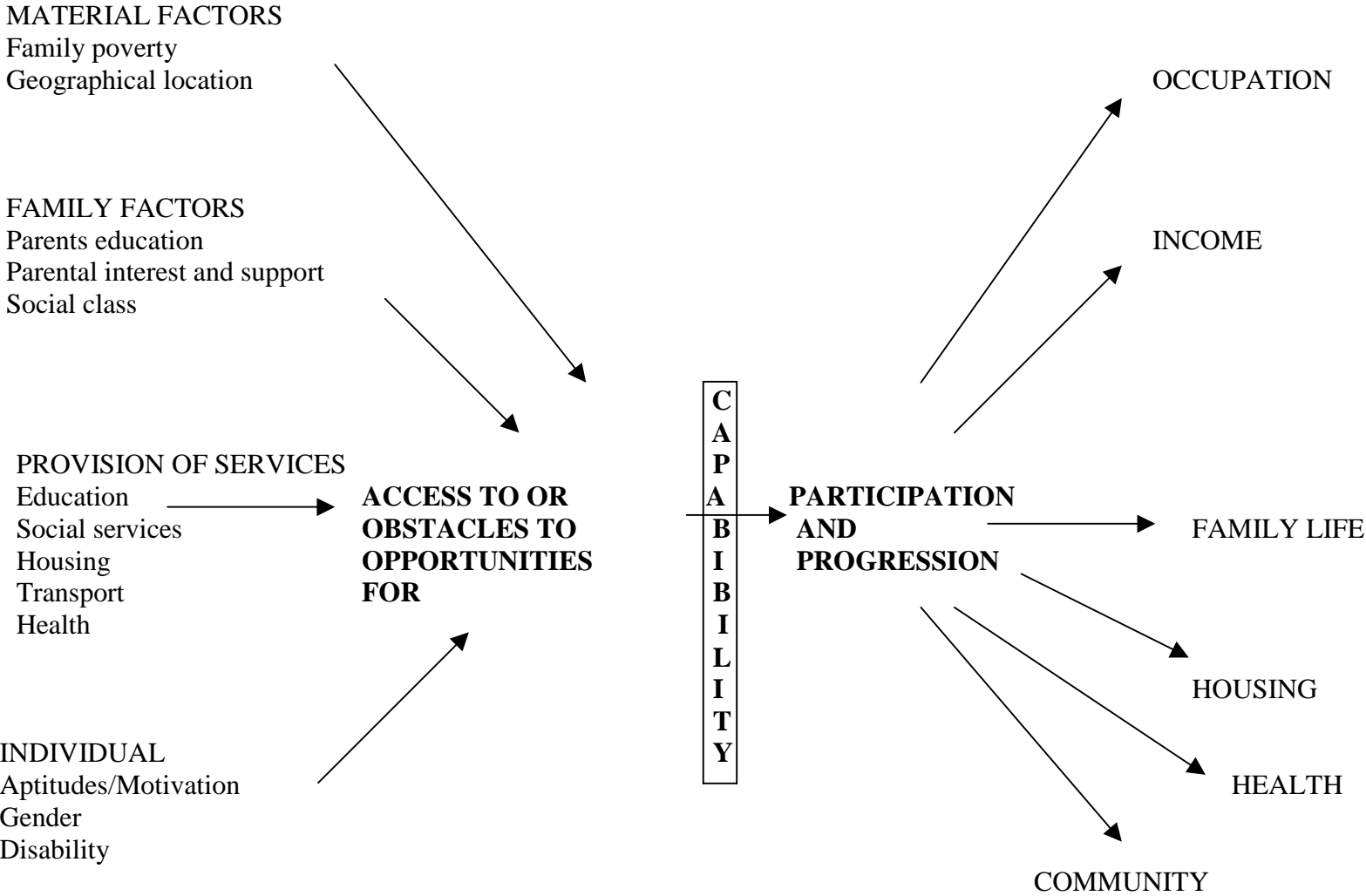
2.4. The broad definition of social exclusion advanced here involves restriction of access to the capabilities essential to functioning in adult life. Through the early stages of childhood first the basic building blocks and then the capabilities themselves are developed. Principally these are reflected in educational outcomes associated with cognitive development, such as literacy and numeracy in childhood and educational qualifications in the teens - the basis of *human capital formation* (Becker, 1975). But alongside these are the psychological and social resources, underpinning the *social* and *cultural capital* components of human development. In total these add up to what Côté (1996) describes as 'Identity Capital' - the key protector against adult social exclusion in late modern society.

2.5. Figure 2 gives substance to the idea illustrating how early precursors in a child's life translate into particular social exclusion externalities or outcomes via the medium of capability. The former include material elements of the child's home and parental characteristics when the child is born, together with such individual characteristics as gender, ethnicity, disability. From birth onwards the child is subjected to both the positive and negative aspects of the services directed towards him or her. These comprise in early life the health and early education services, then schooling, then in adolescence, the education service, youth service and vocational advisory service. In adulthood they broaden out further embracing all the institutions of the state: social welfare, employment, housing, transport, health, and the judicial system. It is in these institutions that the obstacles as well as opportunities for the individual's access to capabilities and ultimately identity capital reside (Bynner, 1998).

2.6. Inclusive education, for example, may draw children with special needs into mainstream schooling. Large class sizes, on the other hand may mask the difficulties of individuals who, through lack of parental support, are unable to keep up with the rest of their peers. There are both physical and educational resources that play a part here, but also, the more hidden but nevertheless highly potent, psychological and cultural resources on which identity capital is built. The labeling of children as dull or stupid excuses teachers in large classes in dismissing such children as lost causes. Gender and ethnic stereotyping may in subtle ways reinforce their marginalisation.

Figure 2

PROCESS OF SOCIAL EXCLUSION OR INTEGRATION



2.7 Longitudinal studies show that as children move through education the gap between the educational haves and have-nots gets wider; progress is enhanced for some while held back for others. The consequence is social exclusion for the latter former and full participation in citizenship for the former, as illustrated on the left-hand side of Figure 2. The statuses through which such citizenship is expressed include occupation, income, family life, housing health and community (including social and political participation). The social exclusion process may be conceived as one in which the probability of access to such outcomes is much reduced or disappears altogether.

(a) Research Resources

2.7. As noted earlier, proper understanding of social exclusion depends on longitudinal research involving long-term follow up of individuals from early life onwards. There are a limited number of studies that meet this criterion fully. Most are located in the UK, New Zealand, the USA (including one in Hawaii) and Sweden (e.g. Wadsworth, 1991; Silva and Stanton, 1996, Bynner, Ferri and Shepherd, 1997; Ferri, 1993; Fergusson, Horwood, Shannon and Lawton, 1989; Janson, 1995). The main ones drawn on in this report are summarised in Table 1. Full details are supplied in Bynner (1996). They involve the collection of information from a large sample or samples of individuals over a long period ideally from birth onwards into adult life. Alongside these studies are those that comprise narrower investigations of children in high-risk situations such as those growing up in public care or involving monitoring of outcomes of children who have experienced different kinds of intervention to combat risk. All are drawn upon in this review.

2.8. The life histories captured by the longitudinal data can be used retrospectively to identify the circumstances and experiences early in life that precede particular problems in adulthood. They can also be used prospectively to identify children at risk of social exclusion in adulthood and the accumulation of risk as they get older (Rutter, 1988; Brooks-Gunn, Phelps and Elder, 1991; Caspi et al. 1990). The analysis of data from cohort members' children, gives the added opportunity of finding out the extent to which social exclusion processes are repeated from one generation to the next (e.g. Gregg and Machin, 1997; Gregg, et al., 1999, Chase-Lansdale, et al., 1991)

Table 1 Longitudinal Research Resources

Denmark: <i>Project Metropolitan</i> Based on a cohort of all boys born in the metropolitan area of Copenhagen in 1953 - 12,270 - who have been followed up nine times since to 1983. The study began when the boys were 13 years old; all the data about their earlier lives came from administrative records.
Great Britain: <i>National Survey of Health and Development (1946 cohort)</i> Began with a perinatal mortality study of 16,000 births in one week in March 1946. A stratified sub-sample of 5,382 cohort members (single legitimate births) was followed up subsequently. Over 3,000 cohort members are still participating with the last data collection at age 43.
Great Britain: <i>National Child Development Study (1958 cohort)</i> Began with a perinatal mortality study of 17,000 births in a single week in March 1958, subsequently followed up at ages 7,11,16, 23 & 33.
Great Britain: <i>1970 British Cohort Study (BCS70)</i> Began with a birth survey - 17,000 babies born in a week in April 1970. Data have been collected subsequently at ages 5, 10, and 16.
Great Britain: <i>Cambridge Study of Delinquent Development</i> Started with 411 boys aged 8 in 1961. These have been followed up since in 9 waves. 408 are still in the study .
New Zealand: <i>Dunedin Study of Education, Psychology & Health</i> Started in 1972 and comprises follow-up of 1,037 cohort members into adulthood, with data collected at birth, 3, and subsequently at 2 year intervals.
New Zealand: <i>Children's Survey on the Development of Anti Social Behaviour and Substance Abuse</i> Started with 1,265 individuals born in a Christchurch urban area in New Zealand. They were followed up at 4 months and then subsequently at annual intervals.
Sweden: <i>Malmo Study</i> Started in 1938 with a sample of 1,500 children in the third grade of school (average age 10). The sample has been followed up though six surveys into adulthood with over 1000 still participating.
Sweden: <i>Evaluation Through Follow-up</i> Based in Gothenberg, brought together in 1991, two separate longitudinal studies; the <i>Individual Statistics Project</i> conducted by the Department of Educational Research at the University of Gothenberg (ISP) and <i>Evaluation through Follow-up</i> conducted by the Department of Education in Stockholm University (UGU). In total it involves follow-up (minimum start date age 10) of five birth cohorts - 1948, 1953, 1967, 1972, 1977 - involving over 50,000 individuals.
Sweden: <i>Individual Development and Adaptation</i> Based in the Psychology department of Stockholm University, another longitudinal study, has been carried out, based on 1393 children who were aged 10 in 1965. There have been 8 waves, the last of which was in 1992.
Sweden: <i>Project Metropolitan</i> Started with a sample of over 15,000 13 year olds in Stockholm in 1964 followed up at regular intervals Government administrative data, including criminal convictions, linked to the respondents' records up to the age of 30 (currently suspended).
USA: <i>National Longitudinal Study of Youth</i> Began with multiple cohorts, aged 14,15,16,17,18,19,20 and 21. These have been followed up annually since 1979. Since 1986, children of mothers who were cohort members have been tested on a number of behavioural and cognitive measures every two years, and the mothers interviewed.
United States: <i>Kauai Longitudinal Study</i> . Based on 1311 pregnancies in 1995 in Hawaii, with 1000, children followed up at regular intervals. 615 still participating at age 18 and 545 at age 30.

(b) Importance of Early Learning

2.9. It has long been established that the early stages of life, even the first year of growth, are of enormous importance in development early on. During the first year of life brain development is rapid and extensive and vulnerable to environmental influence. Early stress has been shown to have a negative impact on brain function. Low birth weight similarly has been shown to carry health and education risks in adult life (Wadsworth, 1991; Silva, 1996). The first signs of the risk potential of these occurrences are evident almost as soon as they are measurable. For example, in the 1970 British Birth Cohort study even at 22 months social gradients in cognitive development were appearing, though the overall dispersion of performance around the mean was also large. At 42 months the dispersion had reduced and the gradients were larger. With every additional month of life children with parents in unskilled manual jobs fell behind those whose parents were in non-manual occupations. Every step up the class scale carried a benefit in terms of enhanced opportunities that were manifest from the day the child was born (Feinstein, 1998).

2.10. It seems that what takes place before school may be as important, if not more important, as what happens after school begins. Figures 3a and 3b put this into perspective for the development of literacy and numeracy skills from birth to adulthood as revealed by the 1958 British birth cohort study (NCDS) and the 1970 British birth cohort study (BCS70).

2.11. The graphs show the percentages of variation in men and women's literacy and numeracy scores at age 37 that can be explained by a whole range of background characteristics measured from birth up to the age of 33. Notably there is a huge escalation in the percentage of variation explained through the pre-school and primary school years and then a leveling off from about 11 onwards, with only small additions to the percentage explained from then on. This demonstrates the importance of early years experience in accounting for variation in adult outcomes; but it is also evident that much of the variation remains unexplained. Part of the unexplained variation can be attributed to measurement error. But a substantial proportion is also attributable to individual life experiences in employment, leisure and so on that are not predictable from early circumstances and experiences (Bynner and Steedman, 1995; Parsons and Bynner, 1998). More generally, the graphs tell us that although there is a high degree of predictability of capability from earlier capabilities, circumstances and experiences, there is a lot about them that is not predictable. Failure to acquire the basic skills - a key risk factor in social exclusion - is predictable only to a certain extent. Some socially excluded adults do not show evidence of risk in childhood and similarly many children for whom social exclusion would be expected later on in life, manage to make the necessary adjustments to achieve success in adult life. As we shall see later many people are trapped by disadvantage, but many escape from it (Pilling, 1990).

Figure 3a:

% variation explained in adult literacy scores at different ages in BCS70 and NCDS

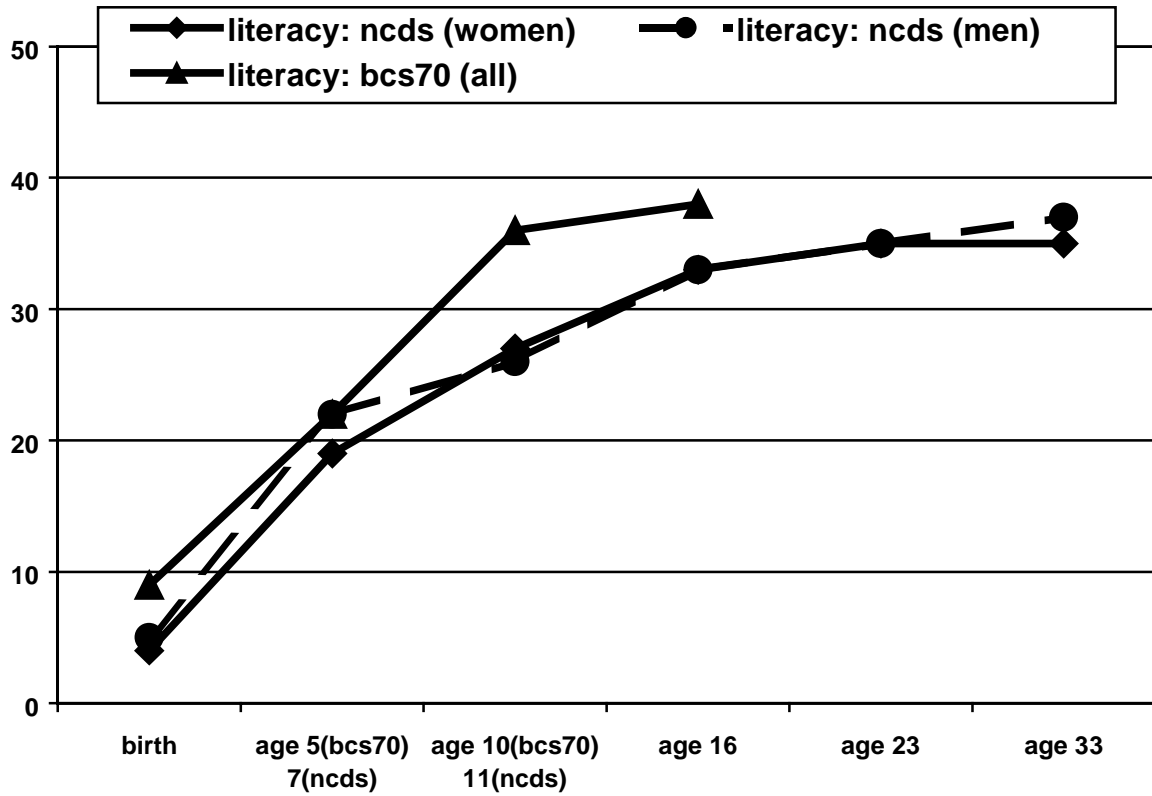
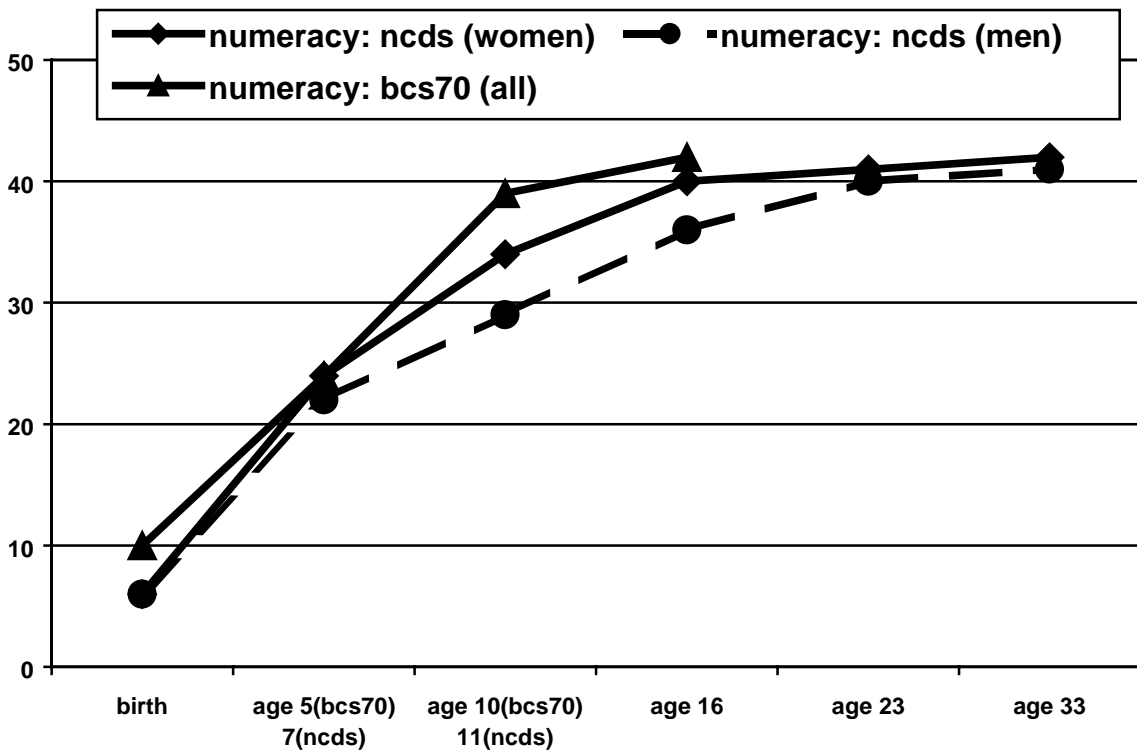


Figure 3b:

% variation explained in adult numeracy scores at different ages in BCS70 and NCDS



3. Risk and Protective Factors

3.1. Reviewing all the predisposing conditions for the social exclusion outcomes mentioned earlier, a common set of features with some variations across particular outcomes is identified. These are listed below under four broad headings (Table 2): factors, child factors, family factors and school factors. One of the key findings from all of the statistical modeling that has been done to try to identify the individual effects of these separate characteristics and their effects in combination, (eg. Gregg and Machin, 1997; Kiernan, 1995), is the key role of poor educational achievement, which is typically associated with all of them.

Table 2 Childhood risk factors

Child factors	Economic factors	Parent factors	School factors
Low birth weight Physical and mental disability	Poor living conditions	Low aspirations for child and lack of interest	Pre-school support poor or absent
Poor visual-motor skills	Rented social housing in economically rundown areas	Troubled relationships within family, especially between parents and children and family break-up	Inadequate transition from pre-school to primary school
Poor early cognitive development	Overcrowding	Lack of adult role models for child	home-school relations weak
Poor grasp of basic skills: reading and number work	Free school meals for children	Lack of social controls	poor leadership
Temperamental difficulties - hyperactivity, impulsiveness and attention (HAI) disorder Agressivity Lack of attachment to adult role models	Low family income	Frequent changes of carer and parental absence	low teacher commitment to child
Behavioural problems		Father long-term unemployed	Manual working class intake
Poor school attendance		Lone parent	Council estate intake
Low self-esteem		Parents with alcohol, drug or psychiatric problem	poor monitoring of children's progress

(a) Child factors

3.2. As disability prompted the original concerns about social exclusion, it makes sense to use it as the benchmark against which to set other risk factors. The long-term outcomes of disability, whether physical or mental, are well established from longitudinal studies. Disabled children tend *less* than the able bodied when they reach adulthood to be in full-time employment, to have a partner, to have children (mainly men), to own their homes or to express satisfaction with life. And educational qualifications ameliorate these outcomes only to a limited extent. In an analysis of 1958 British Birth Cohort study data half the 33 year old men in the lowest qualification group, who at age 7 had learning disabilities, had never had a partner and lived in rented housing. This compared with one fifth of those without the learning disability. Twice as many were also out of employment at the time of interview. Women with learning difficulties appeared to have been just as disadvantaged with respect to employment as the men but far more of them had partners and children. At the higher qualifications levels these differences persisted. but were reduced in size.

3.3. Some of these disabilities arise from conditions accompanying or arising from birth. Although children born pre-term do not necessarily appear to suffer any lasting ill effects, low birth weight (as measured by weight for gestational age) has shown up in a number of studies as a long term risk factor (Wadsworth, 1991; Silva, 1996). Such children are twice as likely to die in the first 28 days of life (Blair and Ramey, 1997). Long-term physical outcomes are reflected in respiratory illness and cardiovascular disease (Wadsworth, 1991). Those surviving frequently experience early learning difficulties and behavioral disorders. The Dunedin birth cohort study showed for example that there was often language delay, which hindered the development of reading skills (Silva 1996).

3.4. Other risk factors associated with early life include poor diet, which is also often associated with early learning problems (Wadsworth, 1991). There is a poor grasp of the visual motor skills and below average performance on copying design tests, when children first enter primary school. Later cognitive achievements, including vocabulary, reading and numberwork are also stunted relative to other children (Silva, 1996). Temperamental difficulties including hyperactivity, impulsivity, attention deficit are also risk factors as are behavioural problems, lack of attachment to adult role models and poor school attendance. These play a role particularly in relation to outcomes to associated with later criminality.

(b) Material factors

3.5. Material risk factors often lie behind many of the individual (child) risk factors, interacting with the biological factors in the production of the personal characteristics associated with risk. They are less susceptible directly to intervention so serve particularly in the identification of populations (of families and of children) where intervention may be necessary. They include the situational effects of living in poor conditions in areas that are generally disadvantaged, but particularly, at the level of individual family life, poor standard rented accommodation, overcrowding, and low family income, especially the children's need for free school meals. Hobcraft (1998) using longitudinal data from the 1958 British Birth cohort study demonstrates the impact of persistent poverty on a range of adult social exclusion outcomes at age 33, including poor qualifications, low income, teenage pregnancy and depression. Duncan and Brooks-Gunn (1997), refine the picture further concluding from a number of US and Canadian longitudinal studies that poverty has large effects on children's ability and achievement, but not so much on behaviour, mental health or physical health measures. The latter are more strongly affected by family breakdown, but this too can affect educational attainments even when poverty is taken into account. They also conclude that the main impact of poverty occurs in early childhood rather than in adolescence. McLeod and Shanahan (1993) using the same data source as some of the Duncan and Brooks-Gunn authors - the US National

Longitudinal Study of Youth - also concluded that persistent poverty has an effect on mental illness but only of the kind involving internalising symptoms, e.g. depression. It also affects boys more than girls.

3.6. Socio-economic status or social class, as assessed from parent's occupation is a surrogate for many economic indicators. Those families at the bottom of the social class scale are most likely to have children at risk (Wadsworth, 1991; Silva, 1996). Timms' analysis of Project Metropolitan data collected in Stockholm extends this finding, demonstrating that social mobility downwards is a risk factor particularly for maladjustment in adolescence and later mental illness (Timms, 1991,1995)

(c) Parent factors

3.7. These include parents' own lack of education, lack of parental interest and support as reported by teachers, or indications that the teachers do not know whether the parents are interested or not. This is often coupled with low aspirations for the children. Material disadvantages in the parents' own childhood also emerge as important factors in their children's development, demonstrating continuity of social exclusion risk from one generation to the next (Gregg and Machin, 1997). Poor relationships within the family, especially between parents and children and lack of social controls on the children, are another set of risk factors, as are family breakdown, frequent changes of carer and parental absence (Kiernan, 1995, 1997; Chase-Lansdale et al. 1995). On the other hand there is little evidence that mothers employment - in isolation from other factors - has deleterious effects (Silva, 1996).

3.8. Many of these parental problems arise through difficulties in the parents' own lives - expressed through the exclusion path many of them are on. Thus labour market problems brought about by poor educational achievement impel many young women into early pregnancy. Those growing up in state care are particularly prone to this course (Quinton and Rutter, 1988). Long-term unemployment on the part of fathers not only limits family income but reinforces a role model that in some families may challenge the importance of educational and occupational achievement. Parents with criminal convictions behind them or psychiatric problems add another set of pre-disposing conditions for childhood risk.

(d) School factors

3.9. Pre-school experiences are important, especially those to do with laying the foundations of primary education, reading to children and so on; attending nursery school or play group can be part of this (Osborn and Millbank, 1987; Bynner and Steedman, 1995). Absence of such pre-school preparation can be a risk factor, especially in families where the parents' own educational resources are limited. In school itself, the main risk factors are to do with being in a low stream, and experiencing remedial education. The social class composition of the school intake also features as does the type of catchment area (inner city , high rise rented housing and so on).

3.10. One of the more surprising findings is the lack of identifiable school and classroom effects in most analyses. Counter-intuitively, even class size appears to have negligible effects on children's attainment. Pre-school intervention programmes such as the US Headstart kind (e.g., Schweinhart, Barnes and Weikart, 1993) can often demonstrate their efficacy, but as Bailey (1997) points out success is generally associated with overall programme quality rather than the specifics of organisation and curriculum. In terms of risk factors what seems to be significant is an overall disjunction between the capability of the family to provide the child with the necessary educational preparation and support and the expectations of the education system. Middle class families have little difficulty in keeping in step with what the system expects of them. Many less advantaged families have great difficulty in doing so. Effective programmes are able to bridge the gap.

(e) Vulnerable Groups

3.11. Taken on its own no single risk factor in the list above is likely to set the social exclusion process going. It has been repeatedly stressed that risk factors go together either in tandem or one leading to another. It is in combination therefore that their potency for impeding children's cognitive and behavioural development becomes apparent. Rutter (1990) argues that risk and protection are better seen as processes or mechanisms than factors or variables; it is in the interactions between the two at particular life stages or over an extended period of time in particular locations that determine the direction the child's development will take.

3.12. Certain geographical locations, especially in the inner cities, are likely to show higher than average concentrations of risk centred on poor housing, family poverty and low achieving schools. But the most clearly vulnerable children are those where the key family relations are weak or absent. Children growing up in public care are the most obvious example, followed by children with absent parents, parents with alcohol or drug problems, and those with criminal records (Robins and Rutter, 1990). Children with disabilities, especially those growing up in difficult material circumstances, are also particularly vulnerable. Intervention early as in programmes of the US Headstart kind can target the cognitive skills directly backed up by the kind of social support the target child may be lacking. The US High/Scope Perry Pre-school project, based on random allocation of children to a pre-school programme for comparison with a control group, was able to demonstrate lasting reductions in social exclusion outcomes for the intervention children over a period of twenty years (Schweinhart, Barnes and Weikart, 1993). The later the intervention takes place the more work will have to be done in changing the direction of a risk trajectory that is well established.

(f) Protective factors

3.13. Garmetzy (1993) draws on an early model by Birch and Gussow (1970) to stress the cyclical nature of the processes of risk and protection, tracing the effects of family poverty on children via: first, poor maternal health and inadequate services; second, through social deprivation and environmental inadequacy; third, through the child's malnutrition and poor health. This predisposes the child to school failure that in turn increases the likelihood of long term unemployment. The consequence is family poverty and the repetition of the cycle.

3.14. The counter to vulnerability is breaking the cycle through protection. But this involves more than just countering those factors identified with risk. Risk factors point to children where intervention may be needed. Protective factors suggest the form the intervention needs to take. Garmetzy (1985) identifies three types of protector:

- *child-based* concerned with such characteristics as personality, autonomy, self-esteem and positive social orientation
- *family-based* concerned with cohesion, warmth and an absence of discord
- *community-based* concerned with the availability of external support systems that encourage and re-enforce a child's coping efforts

3.15. Rutter (1990) makes the point that protection, like risk, is less of a fixed factor than a process that counteracts the negative developmental processes arising from multiple risks. Such processes embrace the promotion of Garmetzy's protectors and the opening up of opportunities. Timing is also critical if they are to have most impact. In the early years success depends on recruiting the family - especially mothers - into

the role of educators. Guralnik and Neville (1997) argue that for parents to do this effectively their information needs have to be met (this is especially the case for children with disabilities). They also need social support not only from professionals, but from others in a similar situation to their own. Professional social support is most effective when it is informal and mirrors as closely as possible the social world that the person is in.

4. Life course patterns

4.1. The examination of risk and protective factors in social exclusion draws attention repeatedly to their connectedness and interdependency. This challenges the psychiatric approach to adjustment problems in adolescence and their outcomes in adulthood. Psychiatrists rely on diagnosis in terms of recognised categories of personality disorders (e.g. the DSMIII classification of the American Psychiatric Society). The alternative (developmental) approach (Rutter, 1990) conceives such problems more as interactions between personal characteristics (capabilities, temperament, gender, ethnicity), the immediate social environment (relationships) and the institutions to which the individual relates (family school etc). Their significance in the social exclusion process will vary from one age to the next, from one individual to the next and from one social situation to the next.

4.2. Nevertheless some broad patterns of such relationships resulting in social exclusion can be established from longitudinal data. Two are examined here: (a)origins of education and employment problems; (b) behavioural problems, criminality and mental health.

(a) Origins of education and employment problems

4.3. It has long been established that disadvantaged circumstances in childhood adversely affect school performance later. The 1946 birth cohort study supplied some of the early evidence on this and in such books as *The Home and the School*, James Douglas the principal author also identified parents' aspirations as important factors in children's educational development. (Douglas, 1964; Douglas and Ross, 1968). Analysis of data from a range of longitudinal studies enables us to track the origins of children's educational difficulties. We can exploit the full strength of the longitudinal data, over much longer periods of time (Bynner and Steedman, 1995, Parsons and Bynner; 1998; Wadsworth, 1991; Silva and Stanton, 1991).

4.4. Central to educational achievement is the acquisition of the basic skills of literacy and numeracy. Table 3 sets out the factors involved in the process at each of the main educational stages illustrating the role of the skills in mediating the effects on educational achievement of circumstances and experience from one stage to the next.

Table 3 Origins of education difficulties and protection targets

<u>Life Stage</u>	<u>Risk Factors</u>		<u>Main Outcomes</u>	<u>Protection Targets</u>
Pre-school	Disadvantaged background parents education poor no pre-school preparation – mother not reading to child	home	Visual motor skills weak Limited vocabulary	pre-school preparation family disadvantage
Early primary school	visual motor skills poor disadvantaged home background parents interest low		Reading skills weak Maths skills weak	primary curriculum family disadvantage family literacy
Late primary school	cognitive skills weak disadvantaged background parents' interest low	home	Reading skills weak Maths skills weak	home school relations pupil teacher ratio
Early secondary School	disadvantaged background reading poor mathematics poor non-exam/ low-level exams behaviour problems parent interest low	home	Reading skills weak Maths skills weak Examination potential low	secondary curriculum school/class organisation examinations policy home school relations student behaviour teacher expectations
Late secondary school	reading poor mathematics poor school attendance poor behaviour problems teacher expectations low		Reading skills weak maths skills weak Public examinations not taken	
Post 16	basic skills poor early leaving education no qualifications no work based training unemployment	full-time	Reading skills weak Maths skills weak no academic qualifications no vocational qualifications	further ed. curriculum youth training first employment work-based training employers unemployment leisure life
Adulthood	literacy and numeracy poor no further education or training no continuous employment unemployment		Literacy poor Numeracy poor no further vocational qualifications no professional qualifications	basic skills education further education and training work-based training unemployment parent education

4.5. The key early risk factors that emerge from the range of variables that have been studied are difficult material circumstances in the home (including low income, social rented housing, overcrowding free school meals for the children). These are often associated with lack of parental interest and aspiration and absence of support at home for early learning. There is consistently poor performance in cognitive tests: initially the visual-motor tests such as copying designs, moving through early reading and mathematics right through to qualifications. Behavioural problems and poor school attendance also emerge as significant factors as the children move through primary school and particularly in secondary school. Early leaving follows accompanied by difficulty in gaining employment. Any work that is obtained is usually low-grade, often casual, and rarely offers training. At every stage cognitive outcomes mediate the effects of earlier circumstances and experience - serving the dual function of risk outcome and risk producer. Thus targeting that fails to address centrally cognitive developmental processes and the means by which they are enhanced or impeded is unlikely to be of lasting value.

4.6 We have to conclude that critical elements of pre-school preparation are missing for children that experience cognitive difficulties and end up educationally backward. Particularly, the constructive play that underpins the development of visual-motor skills is absent, which then impedes early reading. Without early reading, mathematics development is similarly stunted, throughout the whole of primary school. Such children then enter secondary school well behind their peers and with great difficulties in ever catching up.

b). Behavioural problems, criminality and mental health

4.6. The factors that predict behavioural and psychological difficulties in children are very similar to those that predict basic education difficulties, although the latter are implicated more heavily in the former than vice versa. In adolescence and early adulthood these may convert, in Farrington's words (1997) into a constellation of "socially deviant features"" (including drinking, drugs and reckless driving, sexual promiscuity and aggression of which criminality is only one element". The common history is similar to that for educational failure: large families, poor housing, father with erratic job history, broken homes, convicted parents. The main difference that marks out criminality is to do with temperament and relational factors, first at home and then within school.

A number of studies have identified children who tend to be most prone to risk in this respect (Graham and Bowling, 1995). Such children are often hyperactive and show impulsiveness and attention disorders (HIA). They are also often accompanied by early aggression and poor peer relationships (Bergmann and Magnusson, 1991; Stattin and Magnusson, 1988). These characteristics, which may be genetically based (Rutter et al, 1997; 1998), are related to, but distinct from, the conduct disorders of early childhood (Farrington et al, 1990). HIA is typically accompanied by cognitive problems whereas conduct disorders need not be. The existence of these HIA characteristics helps to explain why not all siblings of a delinquent child turn out to have the problems in adolescence that result in delinquency and adult crime (eg, Caspi et al., 1996; Moffitt and Harrington, 1996; Wadsworth, 1991).

4.8. Analysis of data from the Dunedin birth cohort study New Zealand distinguished between 'life course' persistent and 'adolescent situation specific' offenders and examined the early child hood characteristics of the two groups (Moffitt and Harrington, 1996). The defining characteristics of the life course persistent group were those to do with temperament coupled with adverse family conditions, low cognitive ability, low self- esteem and low attachment to parents. The situational delinquents showed none of these temperamental characteristics and little evidence of the adverse family conditions. In other words, much situational delinquency was part of normal growing up even though it could often lead to trouble with the police with ensuing problems from that experience.

4.9. Another interesting feature of the early antecedents of delinquent behaviour is the effect of family disruption set against that of parental deviance. A study referred to earlier by Quinton and Rutter (1990) compared children growing up in care in terms of these characteristics with a control group. The critical factor for both sexes was the family disruption rather than the parental deviance, but especially for girls.

4.10. Such findings are part of a body of evidence suggesting that certain temperamental characteristics in children are often associated with a set of poor family relations, on which pressure is added through the often poor circumstances of low incomes and family breakdown. But is it the breakdown as such which is crucial or is it what leads up to it within the family? A number of studies using 1958 birth cohort study data have addressed questions to do with the consequences for children of divorce (e.g. Ferri, 1976; Elliot and Richards, 1991; Chase-Lansdale et al., 1995; Kiernan, 1997). Elliot and Richards (1991), for example, demonstrate convincingly that for most developmental outcomes, the problem behaviours *precede* divorce and relate mainly to the difficulties already going on in the family before the divorce occurred. Kiernan (1995) found that differences in educational and career outcomes were much reduced when pre-existing family conditions were taken into account, whereas early partnership and parenting appeared to connect to the divorce itself. She concludes that “we should be as concerned about the conditions that preceded divorce and sometimes lead to divorce, such as poverty and economic uncertainty, as well as with the consequences of marital breakdown.”

4.11. What seems to happen in such families is that children with temperamental difficulties add to the tension already existing in the family, aggravating the negative relations rather than the positive relations that prevail in most homes. The children show low levels of attachment to their parents, which weakens further their often already ineffective social controls. The consequence is that the child enters primary school ill-prepared. Another set of relational problems, comparable to that in the family, then follow but this time between teachers and children. The child’s behaviour in the classroom is a source of stress for the teacher who will tend to exercise every effort to inhibit the child’s disruptive effects and consequently appears in the child’s eyes in even more of an authoritarian role. Exclusion from school may follow. The irony is that the frequent stand-offs between teachers and such children may endow them with heroic qualities in the eyes of other children, strengthening their self-esteem and consequently re-enforcing the problem behaviour. There is a strong tendency for juvenile delinquents who are convicted of offences to show such characteristics when they were children. They exhibit a form of alienation throughout their school careers which often originates in alienation within their own families (Rutter et al, 1997).

4.12. Such maladaptive patterns can be usefully viewed in terms of failures in adaptive capacities and coping behaviour with their outcomes reflected in behavioural disorders and criminality. They may also result in psychological difficulties of which anxiety and depression are the most common, particularly among girls. In their review of these kinds of outcomes in adolescence, Ebata et al (1990) emphasise, alongside all the other factors reviewed here, the significance of the social context in triggering the maladaptive and some times regressive responses that lead to mental illness. A changing family situation with new relationships to be negotiated, early maturity or prematurity at the time of a key transition such as from primary to secondary school can operate cumulatively to heighten stress. Educational performance, including the motivation, is also typically implicated in the production of this stress and the reaction to it Roeser et al (1999).

(c) Protective patterns

4.13. What protective process can reverse these processes, i.e protect against risk? In relation to education, the right hand column of Table 3 identifies the key protective factors, identified from studies of individuals in longitudinal studies who managed to overcome early disadvantage and lead successful adult lives. Pilling (1990) selected a sample of adults from the 1958 birth cohort study at age 27, who as children had

met all the criteria of disadvantage, yet subsequently had reached the top bands of educational achievement at 16. As adults they had achieved high incomes and high status jobs, and owned their own homes. These were matched with another sample of adults who as children had similarly met all the criteria of disadvantage and had not succeeded in adult life. Both samples were interviewed, using a mixture of quantitative and qualitative techniques. The main discovery was that the achievers had experienced family cohesion, high parental aspirations and interest in their children's progress, and that their schools or particular teachers had shown 'strong commitment' to them over an extended period of time. The earlier the disadvantage occurred, and the longer it had persisted, the lower the likelihood that these factors would counter it.

4.18. The Kuai study carried out by Werner (1989) in Hawaii, similarly tracked down the 540 members in her cohort study at age 30 to find out who had succeed against prediction and what is was that had protected them. One in three of her original 1000 strong cohort had a delinquent record. Two thirds of those who had experienced risk factors (impairment, chronic poverty, parents no education, troubled family environment - boys more than girls) - developed serious learning and behaviour problems by age 18. One third developed into caring adults. She found that half the stressful life events that significantly increased the likelihood of having a criminal record or an irrevocably broken marriage by age 30 took place in infancy and early childhood. Of those who had overcome the risk, the most common characteristics were for both sexes high levels of achievement orientation. In early childhood problem solving skills and communication skills were prominent; in middle childhood alternative caretakers to the parents had an important role and intra-personal factors such as internal locus of control and self-esteem in adolescence. For all these factors boys were less resilient than girls in early childhood and in late adolescence; in middle childhood and adolescence girls were more vulnerable to the risk.

4.19. Protective factors included dispositional attributes such as activity level sociability and intelligence, affectional ties within the family that provided emotional support in times of stress, external support systems at school, work or church that rewarded the individual's competence and provided him or her with a sense of meaning and internal locus of control. Good social relations with other children, better reasoning and reading skills were also prominent.

Such findings dovetail into conclusion drawn from evaluations of preventative interventions to reduce the risk of criminality. In reviewing the results of such studies, Graham notes the value of home visits to engage parents in pre-school education, such as High/Scope, therapeutic programmes to help the family cope with children's aggressive behaviour and support to help the family stay together and avoid the risk of the child being taken into care. Successful approaches via schools targeted aggressive behaviours such as bullying and the strengthening of home-school relations (Graham, 1998). Case work, including individually based therapy and counseling in isolation from the child's social context were generally found ineffective.

5. Conclusions

5.1. The picture of the social exclusion process that emerges from this review is one of predictability qualified by complexity. There is no predictable linear path from one kind of social exclusion outcome to another. Rather there is a set of mutually interacting circumstances, which go on reinforcing each other in building up what amounts in the case of education to a form of deficit and in the case of behavioural disorders to an accumulated risk of criminality in adulthood. There are critical ages and stages at which the impact of these external circumstances is most pronounced; though these are not necessarily the same for all children. There are also key turning points in a child's life when exclusion processes are most easily reversed and there are "chains of effects" which emphasise their essential continuity. There are also reversals where an exclusion path transforms into inclusion and vice versa. As Wadsworth (1991)

reflecting on the 1946 British Birth cohort study puts it, "later life influences only build on what has been established early in life and the reaction to new influences and capacity to handle them will also be related to earlier life experiences".

5.2. Table 4 illustrates the kinds of process involved in terms of vicious and virtuous circles .

Table 4 Vicious and virtuous circles

<p><i>Downward Cycle</i> Dysfunctional parent-child interactions under conditions of economic and emotional stress Pattern of difficult relationships repeated with teachers. Social relations re-cycle the adverse effects of material disadvantage and behaviour difficulties reinforcing the exclusion</p>

Upward Cycle

Positive interacting influences from parents and teachers

Parents maintain strong aspirations

Teachers show commitment

Children respond to learning opportunities and support

Exclusion resisted

4.3. The most common theme in these dynamics is the critical role of the family, both as creator of the conditions for later social exclusion and the means by which it can be resisted. The great majority of families, whatever the nature of the parents' own problems, provide the protection and the stimulus to positive development that children need. The problem arises when a set of external circumstances combine with a set of adverse family interactions, and particular child characteristics, to reinforce negative developmental processes rather than to inhibit them. In most cases the continuing risk appears to derive less from any irreversible effect in early life than from continuing disadvantaged circumstances reinforcing and re-cycling the social relations identified with the risk.

4.4. In terms of protective policy the solution therefore needs to be two pronged. First, the earlier intervention occurs through pre-school provision, and then through home school links, the more opportunity there is to build up the positive set of relationships around developmental processes with the consequent reinforcement of positive outcomes. The second point is that it is never too late to intervene. The amount of unexplained variation in capability outcomes suggests that there is a large amount of fluidity in individual life patterns that can be influenced throughout adult life. Studies of the life course of adult criminals have shown that relationship changes in adulthood, most obviously the marriage to a non-delinquent spouse, frequently end the delinquent behaviour (Sampson and Laub, 1993; Rutter et al, 1997). On the other hand, development of an alcohol problem in adulthood for perhaps social or other reasons, can exacerbate the negative conditions on which criminal behaviour thrives. (Andersson, Bergmann and Magnusson, 1989). This is often via the route of job loss, unemployment, health problems and marital breakdown.

4.5 Adult pathways of this kind are founded in early experience and are shaped by capabilities. The identity capital they supply helps to optimise opportunities and protect against risk. But the process of acquiring them is not restricted to childhood; it potentially continues right through adult life. Risk translates into obstacles to the resources that are needed. Removal of these is critical to resistance to social exclusion. Targeting therefore needs to occur at every age and every stage and with the targets determined by the research evidence.

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